

An Essay on
Cancerous Growths

Respectfully Submitted to the Faculty
of the

Homeopathic Medical College of Pennsylvania

for the

Degree of Doctor of Medicine

by

John A. Stiles

of Connecticut.

February 1858.

general
An Essay
On
Cancerous Growths

This is a very malignant form of disease, consisting of peculiar morbid formations, with the inherent quality, of indefinite propagation, possessing the power of displacing or transforming to their own nature all surrounding tissues, and a tendency to ultimate self degradation, and the destruction of life.

Before proceeding to a consideration of the disease, I wish to say that pathologists, differ in regard to the title, under which to consider this disease, Some are disposed to include all malignant growths under the

general title of carcinoma, or cancer, whilst these terms, especially the latter, have often been employed by others, in a more restricted sense, confining it only to the ulcerated stage of scirrhus. Also the term, scirrhus has been so much employed by practitioners to designate all tumors that possess the quality of uneven surface and hardness, that the appellation has been sanctioned by custom, as applicable to or synonymous with all malignant swellings. It is more correctly used by some to designate those tumors which from their characteristic peculiarities are known to be the forerunners of,

or cancer in its incipient stage, I do not think those titles applicable to the disease, as general ones, as they only designate certain varieties of the same disease. There is a convenience in having a general designation for all these structures, if the fact be admitted that they are mere varieties of the same disease, which is almost certain, if we take into consideration that all of them, in their earliest stage often present certain common features, however unlike they may afterwards become; that all of them may occur in the same person at the same time, and in the same organ; that the character of the

different varieties may even be presented in the same tumor, at different stages; that in the progress of the disease, the secondary affection sometimes belongs to a variety different from that of the primary; and they all contain in a greater or less number a peculiar cell, which may be considered as characteristic of cancer.

Therefore as the term cancerous is a general one, and expresses the nature of the disease, and not a particular species, or variety, I prefer to make use of it in preference to all others

Anatomical and Microscopical character. Only a single tumor may

exist in the body, or there may be many, occupying the same or different organs. They may be a mere speck in size, or as large as the head of a man, and of any intervening magnitude. In shape they may be irregularly globular, when surrounded by a structure of equal density; pear-shaped, fungiform, or like a cauliflower, when projecting from a free surface; in layers or patches, when in membranous tissues; and ramified when the cancerous matter occupies the veins or absorbents. When a cancerous tumor is subjected to pressure, or scraped, a cream- or gruel-like liquid is generally obtained, in a small or large quantity,

characteristic of this kind of growth, and called "the cancerous juice." This liquid has the property of forming with water a uniform emulsion.

It is usually of a pale, yellowish-white colour, but sometimes yellow, red, or black from the admixture of fat, blood, or melanotic matter. The colloid variety does not yield it, the juice of this being gelatinous, and not uniting with water to form an emulsion.

When examined with the aid of the microscope, cancerous tumors are found to consist of three ingredients, 1st a fibrous tissue, 2^d a viscous liquid or solid homogeneous blastema, contained within the meshes of that

tissue, 3^d peculiar cells in different stages of development, The proportion of these constituents is very different in the different forms or varieties.

The principle forms of cells which enter into the composition of cancerous growths are, 1st the irregularly caudate or ramifying cells; 2^d large cells filled with nuclei; 3^d granular cells filled and covered with granules. They differ much in size, but are mostly large, having a mean diameter of about $\frac{1}{12000}$ or $\frac{1}{10000}$ of an inch. Their nucleus is also large, not only in proportion to other nuclei, but to the size of the cell, of which it often occupies

from one half to two thirds, and encloses from one to three large nucleoli, Besides the cells containing from one to three nucleoli, there are others called mother-cells, very large, sometimes exceeding $\frac{1}{400}$ of an inch in diameter, and enclosing from three to fifteen nucleoli, which are considered as small cells, and occasionally present the proper cellular character.

Varieties of cancerous diseases.—

For convenience of description they may be arranged into three groups, characterised severally by certain distinctive qualities of consistence, and growth. These are 1st Scirrhus, 2^d Medullary carcinoma, 3^d Colloid cancer
1st Scirrhus. This form is character

-ised by a dense and hard tissue with a stone-like feel, and yields a peculiar cracking sound when cut with a sharp knife, the cut surface presents a shining, whiteish, gray, or bluish-white, semi-transparent substance, often intersected by opaque, white or pale straw coloured bands of fibrous, or condensed cellular tissue, Sometimes it has a decidedly lobulated arrangement. The fibrous tissue predominates in this variety, In its perfect form it yields very little cancerous juice on pressure, ands it is best prepared for microscopic examination by being scraped with a knife so

as to be reduced to a pulpy state,
 The main microscopical constituents are juxtaposed nuclear cells,
 But few blood vessels can be detected in this variety. The growth of this variety is usually slow, and seldom attains a greater size than that of an orange. It is disposed to contract adhesions with neighbouring structure, which is clearly seen when it is situated beneath the skin, In this case the skin unites firmly with the tumor, and at the same time shrinks considerably. This contraction of the neighbouring tissues is one of the characteristics of scirrhus.

2^d Medullary carcinoma This variety

in all its forms is less hard and dense than scirrhus. It consists of a dull white opaque, softish matter, bearing a considerable resemblance to brain, with a lobulated arrangement. It owes its consistency to the predominance of the proper cancerous cells. It also differs from the former variety, in the great predominance of its transitory or morbidly developed cells, over the fibrous and other elementary textures which constitute the strama or matrix of the tumor. The cancerous tissue in this variety, contains numerous minute blood vessels, the coats of which are very delicate and easily

rupture, giving rise to frequent hemorrhage, both within the tumor, and from its surface after ulceration. It sometimes attains an enormous magnitude. It is not apt like scirrhus to contract adhesions, and when beneath the skin, causes this tissue to ulcerate by distention and pressure, rather than by communicating its own nature to it. When softened it has a white opaque creamy appearance. It is in this form that the peculiar matter of the disease is most frequently found in the veins and absorbents. This variety is very rapid in its growth.

3^d. Colloid cancer. This variety

consists of a jelly-like transparent matter, usually of a yellowish or greenish-yellow colour, having the appearance of particles of jelly, inlaid in regular alveola beds which, when separated from the tissue, is soft, but as found in the tumor, has considerable firmness. It is contained in a vast number of laculi or cysts of various sizes, The contained matter is strikingly transparent.

This variety may exist alone, or as a part of other cancerous tumors, It seldom occurs in more than one organ at the same time, This variety grows with a moderate degree of rapidity

Origin and progress. A very large majority of cancerous affections are inherited, and occur in subjects of a distinct psoric diathesis, and nine tenths if not all fully developed cancer occur in such subjects, Sometimes several persons in the same family are affected with the disease, But allowing that one tenth of the subjects of cancer, do not bear visible signs of a psoric taint, I think I am safe in saying that there is a certain degree of taint, or morbid agency in the system, which has been inherited, and is peculiar to the development of cancerous growths, and might

have remained dormant in the system through life, but for some mechanical irritant to arouse its destructive powers, and when thus aroused, it may never manifest itself except at the seat of irritation, and may also be comparatively mild in character and slow in progress, or even it may not make any progress, but remain stationary for many years, as such has been the case, unless the patient is of depraved habits, in such a case it might be very malignant and rapid in its progress, extending itself to neighbouring lymphatic glands through the absorbents. The natural progress of this disease,

to its termination is slow. But the progress, as well as the malignancy, depends very much upon the degree of constitutional dyscrasia of the patient, the greater that is; the more malignant and rapid will be the disease.

The constant tendency of this disease when in action is to extend itself by encroaching upon the neighbouring tissue, but the rapidity of its progress differs greatly, and has same relation to the character of the tumor itself.

The hard varieties usually advance much more slowly than the soft. The progress of the disease is affected also by the age of the patient;

being much slower in the old than in the young, Also habits of dissipation, indulgence in excesses, or an impoverished state of the system, unwholesome food, living in unhealthy localities, in damp-ill ventilated apartments, exposure to cold, and wet, constant fatigue, both physically and mentally, long continued watching, grief and sorrow, conduce to its malignancy and progress. On the other hand a strict observance of all the laws of health, will have a tendency to modify the disease very much

One of the characters of the advancing cancerous tumor, is gradually to soften, and eventually to ulcerate,

The hard varieties are sometimes converted into the soft, and the soft become softer; and both, in the end occasionally assume a diffu-
 fluent creamy consistence. The process of softening may commence in any part of the tumor, It is usually attended with increased vascularity, The resulting ulcer is of an aggravated character, with ragged and inverted or everted edges, a sanious and very offensive discharge, and is frequently disposed to bleed and to slough,

When there is formation of cancerous matter in the blood vessels, interrupting the circulation, gangrene is a natural result

Seat- Every organ, and almost

every tissue of the body, is liable to become the seat of cancerous disease, but some are much more liable than others. It is sometimes confined to one part or organ, sometimes it occurs in several at the same time, It is not however often met with in the same organ on both sides of the body at the same time.

Age and sex. It occurs in all ages, but is most common between the ages of Thirty, and Seventy. When it occurs in the young it is usually of the Medullary variety, It is more frequent in females than in males, in a ratio of three to one.

Symptoms and effects. It is usually attended with pain at some period of its progress, sometimes a sharp stinging burning pain is the first warning the

patient may have, of the already advancing disease, but this symptom is very irregular and uncertain. Not unfrequently it has made very great advances especially if in the internal organs, before producing any uneasiness. The characteristic pain of this disease is sharp and lancinating, sometimes the patient feels a sudden acute, sometimes excruciating pain, shooting through the parts affected, and then ceasing for a time. But this is not experienced in all cases, It is when ulceration has extended to the surrounding tissues that the patient suffers most; and now the pains are very distressing. Towards the close of the disease when it terminates fatally, they become constant

and of the most distressing nature. In the advanced stage the system generally becomes affected, When that is the case, the patient generally has a peculiar wan sallow paleness of complexion, with an expression of sadness. Disordered digestion general weakness and emaciation are also common attendants. The pulse is generally quickened, and febrile symptoms appear. When the disease has taken on ulceration the patient may sink under exhaustion from pain general irritation, excessive discharge, and sloughing, but more frequently the disease terminates by interfering with the functions of some organ essential to life, as of the stomach, liver, lungs, and brain, and most of the

symptoms which it produces have their origin in the same source. It frequently terminates life by eroding the large blood vessels. The same result obtains more slowly by the closure of certain passages, as of the oesophagus, pylorus, intestines. By compression or obliteration of blood vessels it sometimes causes venous congestion, and consequent dropsy. Thus carcinoma in the liver gives rise to ascites by impeding the portal circulation. It has a strong tendency to occasion coagulation of the blood in the neighbouring veins, and sometimes gives rise to phlebitis. When the veins which carry the blood from the exterior parts of the body and extremities are thus affected, oedema of these parts is apt to occur, and some-

times a tense elastic swelling of the areola tissue, bearing considerable resemblance to that of oedema-lactum.

The duration of the disease is very variable. In some very rare cases it runs its course in two or three months, whilst in others it continues ten or twenty years and even longer; in some rare cases it continues to old age, and the patient dies of some other disease. The soft variety is usually much more rapidly fatal than the hard. And also when it is seated in any of the internal organs it is much more rapid than when externally.

Diagnosis. When the tumor is so situated as to be seen or felt, a correct diagnosis may be arrived at with much certainty, by the aid of the microscope,

and exploring needle, in examining their anatomical character, which has already been described, also the peculiar lancinating burning character of the pains, though they are not to be relied on in all cases, as they may be present to some degree in other diseases, but may be made use of as concomitant symptoms in the diagnosis. The obstinate resistance of the disease to all curative measures, must be taken into consideration. Another circumstance of importance is the peculiar cachectic appearance of the complexion to which allusion has already been made. When the tumor cannot be felt or seen the diagnosis is

always more or less uncertain, In such a case the practitioner may sometimes avail himself of percussion and auscultation with advantage, in connection with the character of the pains, the constitutional symptoms, and the obstinacy of the disease which has already been referred to Treatment. The treatment of cancerous diseases has always been attended with much difficulty, and the skill of the most experienced has been baffled in past times in the majority of cases, Although the use of the knife and medicinal agents, has prolonged the lives of patients in some instances, but a very few cases have been perma

nently cured, But the ill success of our predecessors should not deter us, but should stimulate us to use every effort in the study of the disease, and the nature of new medicinal agents, that we may eventually be able to treat this much dreaded disease with good success

The treatment must be prompt and judicious in the very first stage of the disease if we wish to effect a cure, The patient should be put upon strict diatetic rules, the food should be of the most nutritious kind and easy of digestion, in order to support the general system; All highly seasoned food, coffee and stimulants of all kinds should be

abjured, all excitement, such as anger joy grief or sorrow should be avoided. Moderate exercise in the open air should be taken as often as practicable. In order to sustain the general system in the advanced stage of the disease, constitutional treatment will be necessary, As it is impossible to point out any general treatment, we must be guided by the symptoms presented in the different stages of the disease, in the selection of the remedies, taking into consideration the temperament, and constitution of the patient,

The remedies known to be the most efficient in all cancerous

diseases are. Arsenicum, and Conium, there are others also which may be of great service as adjuvants in different stages of the disease, such as Belladonna, Calcareo carb, Carbo veg, Chamomilla, China, Clematis, Iodine, Kali carb, Kreasotum, Nitric acid, Phosphorus, Thuja, Sulphur.

There is much diversity of opinion in regard to the expediency of operating in cancerous diseases, as the result of such operations are more or less uncertain, There may be cases in the earliest stage of the disease, before the tumor has become of much size, or incorporated into the surrounding tissues, and the

patient not far advanced in years, and but little or no indications of cachexy, that an operation might result in a permanent cure. But before resorting to the use of the knife, we should duly consider the case with sufficient counsel, then if it is evident that an operation would result in a radical cure, or even if it should only stay the disease for a few years and thereby prolong the life of the patient, we are in duty bound to operate. In the advanced stage an operation would be hazardous, all we can then do is to render the life of the patient as comfortable as possible,

by palliative treatment, and if their sufferings are continual and very acute we should be justified. Homoeopathically, in the use of morphine to produce a narcotic effect, and thereby relieve the sufferings of the patient